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# Inguinal Oophorectomy

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## A different technic reported for mares

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THE spay operation to be described was observed at an army post during the past summer. Although the description is made with the full permission of the Commanding Officer and the operating surgeon, army regulations do not permit names or places to be published.

Because of the inconvenience of the operation and the difficulty of controlling hemorrhage in the classic operation through the vagina in the mare, and since the surgeons had been experiencing some trouble from the latter, the following technic was derived.

Some years ago in Denmark, a technic for the castration of cryptorchid stallions by direct incision through the internal inguinal ring was reported. After adopting that technic for the cryptorchid operation, the operating surgeon and fellow officers decided to attempt the same type of operation for spaying a nymphomaniac mare since the area invaded surgically is practically identical in both cases.

In the observed operation, the mare, a chronic "switcher" having cystic ovaries diagnosed by rectal palpation, was first given an enema to empty the rectum and a part of the small colon. After this, 75 cc. of a solution containing 15.5 percent of chloral hydrate and 13 percent of magnesium sulfate in water (the amount of solution given was computed at the rate of 60 cc. per 1000 pounds) was injected intravenously to produce partial anesthesia.

After administration of the anesthetic, the mare was quickly placed on the operating table on her right side. The left hind leg was restrained in a flexed and abducted position. An assistant clipped the left inguinal area with an electric stock clipper, washed the area thoroughly with soap and water, and applied Mercresin (a proprietary organic mercurial) as a pre-operative antiseptic.

### Operation

Using regular aseptic technic, the surgeon made a 5 inch incision in the skin of the abdominal wall, just medial to the angle of the leg with the body, and parallel to it, so that adduction of the leg would automatically close the incision. Separating the connective tissue, avoiding the subcutaneous veins and practicing rigorous hemostasis, he continued by blunt dissection to the peritoneum. The incision was made to carry the opening anterior to the inguinal ligament and antero-medial to the prepubic tendon. He then incised the peritoneum enough to pass his hand through, and reaching backward and upward to the uterus, followed it forward along the broad ligament to the ovary, and pulled the ovary toward the opening. His assistant then passed the open ecraseur loop in through the incision, whereupon the surgeon slipped the loop over the ovary. While the surgeon kept his hand on the ovary to keep out stray loops of intestine, the assistant tightened the ecraseur, severing the first ovary. When it was brought out, the surgeon immediately picked up the other ovary, which was cut off in the same manner. When both ovaries were satisfactorily removed, the surgeon sutured the peritoneum with plain catgut. The skin was sutured with surgical silk using a continuous lock stitch

(blanket suture). No packs were used and no post-operative antiseptic was applied.

After the mare had sufficiently recovered from the anesthesia, she was removed from the table and tied to stand for 24 hours in a single stall with all bedding and hay removed. The skin sutures were removed on the following day. The mare made a rapid recovery, and in three days was sent out on the exercising line.

The first operation of this kind proved to be disheartening, since the bedding had not been removed from the stall, and the mare was not tied. Two hours after the operation, the mare, still not completely recovered from the anesthesia, either slipped or lay down, tearing open the incision and causing prolapse of several feet of small intestine. As an emergency measure, an intestinal anastomosis was performed, but apparently too much damage had already occurred, for the mare was dead the next morning from peritonitis and shock.

Two operations have since been completed with the proper after-care, with very uneventful recoveries in both cases. Very little acceleration of the pulse, and practically no rise in temperature were observed in either case. Bran mash was fed on the first day following the operation, with a return to normal feeding on the second day. No infection, and very little swelling were observed in either case.

### Disadvantages

Naturally, this technic is not without its disadvantages, so it would be well to list the objections to it. With the vaginal technic, less after-care is necessary. The vaginal incision does not need to be sutured, as there is little or no probability of prolapse. It may be somewhat easier to locate the ovaries when they are above the intestines instead of below them, as is the case in the vaginal operation, but the arm must reach farther into the body. The vaginal incision is perhaps less liable to infection since it is protected from the outside by the vagina, but should the vagina be harboring an infection which might not wash out in the preoperative irrigation, the infection would be carried in on the operator's arm. The skin of the inguinal region, on the other hand, is readily cleansed thoroughly.

### Advantages

Advantages of this type of operation over the vaginal method of spaying as listed by the operating surgeon were: (1) The inguinal region is more convenient for the picking up and removal of the ovaries. (2) The visible incision gives the advantage of a better check on hemorrhage since the field of operation can be seen, and is not in a blind sac as in the vaginal spay. (3) The location also provides more readily observed and easily controlled infection, should any occur. (3) The inguinal operation provides more safety for the operator, since the mare is completely restrained in a recumbent position, while the vaginal spay is done with the mare standing, with scarcely more than sedation for anesthesia. Since these mares are dangerous at best, a sideline, particularly in the hands of a novice, may be insufficient restraint. Further, when the ecraseur is cutting the stalk, or mesovarium, the standing mare may drop or sit down on the operator's arm, the consequence of which scarcely needs explanation. (5) Most veterinarians are more familiar with cryptorchid castration than spays, and the technic would be more easily mastered as a consequence. (6) Finally, in a vaginal spay, it is not unusual for adhesions to occur between the rectum and vagina which may result in a partial rectal obstruction, predisposing impaction and colic.

In the event no operating table is available, as will be the case in operations in the field, casting the animal on the ground will work quite as well.

The writer wishes to express sincere thank to the Commanding Officer and to the operating surgeon, though unnamed, for permission to publish these observations and for their information as to the development of the technic, and the cases cited.